We claim:

1. Dye-containing polymer particles containing at least one dye in a matrix of an essentially water-insoluble polymer and having an average particle size within the range from 5 to 500 nm and a particle size distribution width (variance) of ≤ 40%.

2. Polymer particles as claimed in claim 1 having an average particle size within the range from 50 to 300 nm.

3. Polymer particles as claimed in claim 1 or 2 having a particle size distribution width of ≤ 35%.

4. Polymer particles as claimed in any of the preceding claims, wherein the polymer contains (in each case based on the total weight of the polymer) from 30 to 100% by weight of at least one polymer a, from 0 to 50% by weight of at least one monomer b having polar groups and from 0 to 30% by weight of at least one further monomer c, different than monomer a, in polymerized form.

5. Polymer particles as claimed in claim 4, wherein the monomer a is selected from the group consisting of esters of α,β-ethylenically unsaturated C_3-C_8 monocarboxylic acids or C_4-C_8 dicarboxylic acids with C_1-C_{12} alkanols, vinyl esters of C_1-C_{12} monocarboxylic acids, aromatic vinyl compounds and C_2-C_6 olefins.

6. Polymer particles as claimed in claim 4 or 5, wherein the monomer b is selected from the group consisting of α,β-ethylenically unsaturated C_3-C_8 monocarboxylic acids, α,β-ethylenically unsaturated C_4-C_8 dicarboxylic acids, the monoesters with C_1-C_{12} alkanols and anhydrides thereof, aromatic vinylcarboxylic acids, monoethylenically unsaturated sulfonic and phosphonic acids, esters of α,β-ethylenically unsaturated C_3-C_8 monocarboxylic acids with amino-C_2-C_8-alkanols, mono-C_1-C_4-alkylamino-C_2-C_8-alkanols or di-C_1-C_4-alkylamino-C_2-C_8-alkanols, N-vinyllactams, esters of α,β-ethylenically unsaturated C_3-C_8 monocarboxylic acids with C_2-C_8 hydroxyalcohols and the ethoxylated or propoxylated derivatives thereof.

7. A process for preparing dye-containing polymer particles containing at least one dye in a matrix of an essentially water-insoluble polymer and having an average particle size within the range from 5 nm to 5 µm, which comprises

a) precipitating the polymer particles from a solution of the polymer and of the dye in a water-miscible organic solvent by addition of an aqueous phase; or

b) emulsifying a solution of the polymer and of the dye in a water-immiscible organic solvent in an aqueous phase and precipitating the polymer particles by removing the organic solvent.

8. A process as claimed in claim 7, wherein the precipitating of the polymer particles is effected in the presence of a protective colloid.

9. A colorant comprising the dye-containing polymer particles as claimed in any of claims 1 to 6, optionally together with customary auxiliary and additive substances.

10. A colorant as claimed in claim 9 in the form of an ink-jet ink preparation comprising the dye-containing polymer particles as claimed in any of claims 1 to 6 dispersed in an aqueous medium.

11. The use of the dye-containing polymer particles as claimed in any of claims 1 to 6 for printing print media, especially paper, foil, film, papers for the reproduction of digital photographic images and graphics, and also for printing textiles, especially by transfer printing.

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